Peterson Institute for International Economics

Understanding China's economy and the housing bust, with Tianlei Huang

May 19, 2026

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[00:00:37.20] - Anjali Bhatt

Hi, and welcome to PIIE Insider Live. I'm Anjali Bhatt, Communications Manager and Research Fellow here at the Peterson Institute for International Economics. I often say that one of the best parts of my job is that I can just walk into the office of some of the world's top economists and ask them anything and they answer. So with PIIE Insider Live, you're coming with me to ask those questions and get those answers that you won't get anywhere else. Today we're speaking with Tianlei Huang, senior fellow here at the Peterson Institute and author of the forthcoming book Detox: China's Fiscal Reckoning in the Shadow of the Housing Bust. Before we start, if you're watching on Zoom, feel free to put your questions in the Q&A box. So, hi, Tianlei, thanks for joining us.

[00:01:15.10] - Tianlei Huang

Hi, Anjali.

[00:01:16.20] - Anjali Bhatt

Okay, let's just start with China's economy sort of overall. The economy is really big, but like, just how big is it and what is it made up of? I feel like we hear a lot about how, you know, China's economy is so big. Also, they're exporting lots of stuff all over the world. What is the makeup of the economy actually made up of?

[00:01:36.28] - Tianlei Huang

So when measured in market exchange rate, it is now the second largest economy. It's about $20 trillion. The US is about $32 trillion. And as a share of global GDP, China is nearly 20%. And in terms of composition, it's now about 40% private consumption, 15% government consumption, another 40% investment, and about 5% net exports.

[00:02:00.02] - Anjali Bhatt

So exports are only 5% of China's economy.

[00:02:03.29] - Tianlei Huang

Yeah, well, 5% may not sound big, but, you know, given the sheer size of the Chinese economy in absolute terms, 5% is actually quite big. So Chinese exports last year was about $3.7 trillion, and that's the US, Japanese, and Korean exports combined. And we already know that those three economies are large exporting economies already. Right. So it is, it is huge. And, you know, it's not a surprise why China is having so many trade tensions with its trading partners now.

[00:02:35.08] - Anjali Bhatt

Okay. So exports are 5%. But then you said consumption and investment are also a much bigger part of the Chinese economy. What are those sort of consumption and investment patterns looking like? I think over the last 30 years they've changed a fair amount, I would think, especially the past maybe 15-ish years. What have the consumption investment patterns in China been looking like?

[00:03:00.18] - Tianlei Huang

Yes. So, you know, when a country is very poor, private consumption is usually quite high. And that's where China was when it first started to liberalize its economy in the late '70s. At the time, private consumption as a share of GDP was about 50%. But over time, as China started to accumulate capital, investment share went up and private consumption share went down, all the way to the lowest point of about 35% around 2010. In the last 15, 16 years, private consumption share is picking up again. It's now about 40%, and investment share is about another 40%.

[00:03:39.16] - Anjali Bhatt

So what do that 40%— we'll get to consumption in a second, but of the 40% of investment, that's just sort of overall investment, right? And in business, in everything.

[00:03:51.12] - Tianlei Huang

Yeah, it's business investment. And usually in China, investment is one-third housing investment, one-third infrastructure, and another one-third in public utility and those related sectors.

[00:04:03.28] - Anjali Bhatt

Okay, great. So we'll definitely get to housing in a minute. But let's start with consumption. So especially in the last sort of 10 to 15 years, there's been a lot of— in the macroeconomics world, there's been a lot of criticism of China's underconsumption. And you said consumption is about 40% of China's economy right now. So 40%, that's underconsumption. What does that really— it's been called underconsumption. Consumption. What does that really mean? And is that a bad thing?

[00:04:35.08] - Tianlei Huang

So, you know, the average of other upper-middle-income countries, the private consumption share is about 50%. So those are the countries that have similar level of development like China's. So China is about 10%age points below the average of its peers. And obviously, the private consumption share of GDP in advanced economies is even higher. I mean, the US, for example, consumer is about 70% of its economy. So it's huge. But, you know, we shouldn't really be in China with the US. The US is very much an outlier here as well. So why is it a bad thing? Why is it perceived as a bad thing? Because it can create both internal and external imbalances. Internally, low consumption means high savings, and massive high savings then go to finance massive investment, which can cause problems like high debt, overcapacity. And those are exactly the problems that the Chinese economy is suffering now. And externally, low consumption means all the goods produced in China cannot be absorbed domestically in China, and they have to be sold elsewhere to be absorbed, and that can cause trade tensions. With that said, I often find that underconsumption criticism a bit unfair.

[00:05:49.14]

It is true, there's no doubt about it, that, you know, private consumption as a share of GDP is indeed low. But, you know, private consumption was actually growing at a very impressive pace in the last 40-plus years. Our PIE colleague, Garvin Subramania, just recently published a piece with Project Syndicate arguing exactly that. He showed that between 1978 and 2024, private consumption in real terms was growing at 7.6% every year for 40+ years. And that's actually higher than the pace in Japan, in South Korea, in Taiwan when they were at the same level of development. So for Chinese consumers, they have actually done remarkably well. The reason why private consumption as a share of GDP went down in earlier years was because just overall GDP growth was much faster and it overshadowed private consumption growth.

[00:06:38.25] - Anjali Bhatt

So Chinese consumers were consuming more and the rate of consumption was growing. But because the economy was growing faster, just the share of consumption went down. Went down. Okay. So it's just a matter of shares of how you calculate it. Okay. So I guess where we are right now, we're not sure that underconsumption is necessarily a bad But in this mix of consumption, investment, net exports, government spending, what is sort of the state of the economy right now? Is it, you know, strong? Is it weak? Are we doing okay? Where does China's economy stand?

[00:07:21.09] - Tianlei Huang

Well, domestic demand in China is obviously quite weak. That's reflected in prices. And like the US, where high inflation has been a problem for several years, in China, there is essentially no inflation. Last year, CPI inflation was basically zero. There is some pickup in CPI inflation in recent months, but we don't know whether it's sustainable or it's just a one-time thing. So that's a sign that domestic demand is very weak.

[00:07:48.23] - Anjali Bhatt

What was the share of government spending?

[00:07:51.05] - Tianlei Huang

About 15%.

[00:07:52.02] - Anjali Bhatt

About 15%. Okay. So that's still lower than both consumption and investment. Yeah. Okay, well, let's turn to housing. That's what you've been really in the weeds on. It's the focus of your upcoming book. So, okay, you've really been in the trenches of the research of China's housing market, but I don't know that much about it. So we're talking about residential housing. Why is residential— why is the residential housing market so important? You're writing a whole book on it. Why is it so important to the Chinese economy? And how big is this market?

[00:08:25.27] - Tianlei Huang

Yeah, well, some estimates suggest that, you know, at the height of the boom, the housing boom, real estate accounted for more than a quarter of China's GDP. So obviously it's a very, very important sector to the Chinese economy. And if we look at the aggregate market value of the Chinese housing stock, you know, again, at the height of the housing boom, some estimates suggest that it was twice that of the US and 3 times that of Europe. So it is— and some even suggest that it's probably the world's largest asset class. So that's the kind of scale that we are talking about here. But of course, to be fair, China is a country, a very big country with 1.4 billion people. Even with a more reasonable valuation, its housing market will still probably be one of the largest in the world. But the problem is the kind of valuation we see during the Chinese housing boom just far exceeded what can be reasonably justified by Chinese fundamentals. And that suggests that there was likely— there was likely a very big bubble.

[00:09:23.28] - Anjali Bhatt

Okay, so this housing market boom, we'll get into the bust, but for there to be a bust, there has to be a boom first. What did that housing boom look like? When did it start and how did that sort of grow?

[00:09:39.06] - Tianlei Huang

Yeah, so the Chinese housing market was created in the late '90s, so it's a fairly young market. And at the time when the nationwide housing market was created, China was experiencing very fast urbanization. You know, millions, hundreds Millions of people moved from the countryside to cities, and household income was also growing very rapidly. So obviously, of course, with more people living in cities and people's income were growing so rapidly, people wanted to not only to live in their own homes, but also to upgrade for those who already owned, right? Upgrade to better quality, better location homes. So there was indeed very strong residential demand. And as a result, you know, on average, housing prices nationwide was growing at something like 6%, 7% in real terms every year for 20-plus years. And in big cities where prices were were going even at double digits every year for, again, 20-plus years. In the city of Shanghai, for example, where I grew up, prices were going at double digits for 20-plus years every year. So I guess that's one of the reasons I wanted to write this book. It feels very much like a part of my own grow-up story, housing, right?

[00:10:42.20]

So it's, in a sense, kind of personal to me. So with that kind of price appreciation, obviously households became more wealthy, local governments were able to raise more revenue from selling land, and collecting related tax revenue. And also developers and banks obviously also benefited hugely. So a booming Chinese economy led to a booming housing market, and the housing market eventually became a critical part of the broader Chinese economic miracle. But the problem is, over time, even though those strong fundamentals that had supported the housing boom earlier began to weaken, you see the economic growth started to slow down, urbanization started to slow down, household income also started to slow down, but this belief among household that housing prices would only go up became just so entrenched. And that led to people buy more and more homes. People often held multiple homes and oftentimes leaving their second homes empty. And vacancy ratio across major cities was more than— was higher than 25%. So that was a strong sign that the boom was actually turning into a bubble. And now the bubble has burst.

[00:11:52.04] - Anjali Bhatt

So people were buying houses more than they could live in because it was an investment, right? They saw it as a strong investment, a good place to put their money, and that just, uh, became sort of like a self-fulfilling prophecy where the housing market was valued very highly, so let's buy a house because it's valued highly. Yeah, and on and on and on. Yeah, yeah. Okay, uh, I remember you, you've mentioned something for, uh, how the boom sort of started growing and why people were interested in, or why the the market grew so quickly was that the business model itself of the residential housing market was really unique. So can you explain sort of how the business model looks like?

[00:12:34.09] - Tianlei Huang

So yeah, I guess you're referring to the business model run by the Chinese developers. So Chinese developers can presell homes to homebuyers even before the construction is completed, trying to borrow this model, this presell model from Hong Kong in the '90s. And essentially, you know, the business model that the Chinese developers were running was not like a Ponzi scheme, right? It's, uh, they would take the money from presale and also use the money they borrow from banks and shadow banks to buy another piece of land from a local government and then start a new project, right? So this, and they just keep this rolling, right? And this model allows developers to build homes really fast, but obviously this model is inherently also very fragile. If any of the steps in, in its site, in this cycle falls apart, then developers can immediately face some funding stress, and that risk essentially materialized during COVID when the Chinese regulators introduced some really strict financing restrictions on Chinese developers. They were aware that the sector was overly leveraged, and they wanted to force some deleveraging in the sector. And remember, at the time during COVID China has some really strict zero-COVID movement restrictions, right?

[00:13:50.29]

That really froze housing activity across the country. And with those two things happening, a lot of developers just lost access to credit, and they started to default on their, on their debts, and they were having trouble finishing the construction of the homes that they already pre-sold to home buyers. And from there, the housing bubble started to collapse.

[00:14:11.01] - Anjali Bhatt

So people were able to buy a house that didn't exist, and they would pay a mortgage on a house that didn't exist.

[00:14:18.21] - Tianlei Huang

They're paying for a concept, essentially, a home that didn't exist.

[00:14:21.27] - Anjali Bhatt

And then the developers who sold the concept of the house were taking that money and the mortgage money And then using that to build the houses while also at the same time promising even more houses that haven't been built yet.

[00:14:36.03] - Tianlei Huang

Yeah, exactly.

[00:14:36.17] - Anjali Bhatt

Okay. I would not like to pay a mortgage on a house that doesn't exist yet. Okay, so you said the regulators stepped in. So as you said, at every sort of step in that business model, because it is based on a concept, if something breaks down at any step of that, Then the bubble burst. So that, that's what, that's what happened. So the regulators decided to step into this business model. So what did they do?

[00:15:04.21] - Tianlei Huang

So they introduced something called the three red lines. So those are three financial criteria that, uh, a developer, if it wants to raise more money, has to meet. So, uh, it includes, you know, how much, uh, the, the developer's debt-to-asset ratio should be, how much their net debt should be, how much cash they need to hold. So if they are able If they meet two criteria, they can incur how much, how much debt. If they meet all three criteria, they can meet how much, how much debt. If they are in violation of all three red lines, they cannot raise any new debt at all. So that's the, that's the three red line policy.

[00:15:41.23] - Anjali Bhatt

So that was part of it that intervened in this model. And so then you said that COVID was sort of the other thing that precipitated this burst.

[00:15:51.18] - Tianlei Huang

Yeah, I think COVID really, zero COVID lockdowns especially, really froze housing activity that really accelerated. It, the bubble burst. But if we look deeper, if we look beneath the surface, there were two more fundamental reasons why the housing bubble has burst. One is real interest rate in China have really gone up a lot. During the boom era, real interest rate in China were very low and oftentimes negative, and that was largely due to financial repression at the time. And for households, they—

[00:16:23.00] - Anjali Bhatt

What is financial repression?

[00:16:24.08] - Tianlei Huang

Yeah, well, financial repression is a government strategy that keeps interest rate artificially low for some kind of purposes. Well, sometimes a government may want to raise money cheaply, so it depresses interest rate. Sometimes the government may want to use household savings for some priority sector to spend them on some priority sectors. That's what happened in China. So that's financial repression. With financial repression, you usually have lower interest rate, lower than it should be in a market economy. So that low interest rate during the boom era really created a lot of strong incentives for households to shift their savings into real estate, right? And now we're kind of seeing the opposite. Real interest rate, even though the central bank, the Chinese central bank, has been cutting interest rate, but the interest rates cut have not been enough to offset the decline in inflation. Inflation has really come down a lot and much faster than the rate cuts. So real interest rate in China have really gone up a lot, right? And that just means that for households, it just means they have fewer incentives to shift their savings into real estate. And another more fundamental reason is the deterioration in household expectations or sentiments, right?

[00:17:34.19]

Again, during the housing boom, people were just generally very optimistic about the outlook of the economy and about their own income growth, right? So they just pulled their savings into real estate. And now that sentiment really has shifted fundamentally. You see people are just increasingly pessimistic about outlook of the economy, and they just no longer view housing as a worthwhile investment, right? So, and what I worry now is, you know, just like how optimism during a boom can become self-fulfilling, you know, this kind of pessimism, this kind of sentiment can also become self-fulfilling during a bust, right? And that can really prolong the downturn, even the fundamentals are recovering. And I think China is probably already heading into, in that direction.

[00:18:22.27] - Anjali Bhatt

It's vibes all the way down. Yeah. What were some of the things that precipitated the change in vibes? I feel like in, what was it, like 2021, 2022, we heard a lot of stuff about the company Evergrande. That was one of China's largest developers. Did they file for bankruptcy? That was such a big story. What happened there?

[00:18:50.17] - Tianlei Huang

Yeah, so Evergrande was the first one that defaulted on its debt, and many other developers, I mean, almost all of them now have defaulted on their debt obligations. And obviously with their internal financial crisis, they were having trouble again, finishing the construction of the housing project that they already pre-sold, right? And that really undermined household confidence, but that's just part of it. I think there are probably more reasons, you know, it's increasingly clear that Beijing, the government, is no longer as interested in economic development like in the past. They are stressing increasingly the importance of national security, and the concept of national security seems to just getting broader and broader over time. And people really started to question, and obviously Zero-COVID also played a critical role in undermining household confidence here. So people just started to question, you know, What is the future? What's the future gonna look like? And also, you know, the high real interest rate probably also played a role in undermining household confidence as well. So it's a confluence of factors that's really leading to this deterioration in household sentiment, in the vibes.

[00:20:15.08] - Anjali Bhatt

All vibes. Okay, so what, The bubble has definitely burst and we don't think that there's going to be another bubble or boom anytime soon. What does that mean for China's economy more broadly? Like, how big of a deal is this in the next maybe, I don't know, 10 years?

[00:20:34.02] - Tianlei Huang

Yeah, well, again, domestic demand under the shadow of the housing bust is sluggish, right? We can look at— well, if we look at private consumption, actually, private consumption in the first couple of years of China's COVID reopening. So that's from 2023 onwards. It It was actually quite strong. I mean, in 2023, private consumption, again, in real terms, was growing at something like 9%. In '24, it was growing at 6%. Last year, it was growing at 5%. Well, that was largely because of some government programs in place that provided households with subsidies. When there was an appliance trading program, for example, if household trading their old appliance and get a new one, they can get some government subsidy, and people just took advantage of it, of course. But essentially, And what that program did was front-loading future demand, obviously, right? If you buy a new washer and dryer this year, you're not going to buy another one next year, right? And we're really seeing the effect of those government subsidy programs fading over time. And there's this negative wealth effect from household shrinking, housing wealth, it's increasingly weighing on household consumption behavior. And you're really seeing a really dramatic slowdown in household consumption in recent quarters.

[00:21:50.29]

And I think it's largely because of the negative wealth effect. And if you look at consumption— if you look at investment, obviously, because residential investment used to be such a major part of overall business investment in China, now residential investment has really collapsed. And other kind of investments, even if some of manufacturing investment was actually growing quite robustly in the last couple of years, but it's still not enough to offset the drag from residential investment. So overall investment is still very, very sluggish. And another channel through which the housing bust affects the real economy in China, which is probably unique to China, is through government finance. And that's a focus of my book, because the Chinese government draws a large amount of revenue from selling land and collecting related tax revenue. With less land revenue, they— and also coupled with their reluctance to issue more debt, the government spending as a share of GDP has been declining ever since 2020. And so instead of being a solution to the problem, the government actually is now a part of the problem. Right. So that's— so overall domestic demand is very weak and that's reflected on prices.

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And the economy is just increasingly reliant on external demand to meet its annual GDP growth targets.

[00:23:05.26] - Anjali Bhatt

And so that external demand, that's where the exports come in. Yeah. And so a lot of the growth that is driving the Chinese economy is from just that 5% of exports to the rest of the world to fill demand outside of China. Because inside, inside China, the vibes aren't great. And so people aren't spending as much money domestically. So you said that the government draws a lot of revenue from land sales. So they're selling— they were, and probably to a small scale still, are selling the land to developers and take the revenue from the developers, and then the developers invest in the land that they bought to build houses. And then that's like business investment.

[00:23:48.21] - Tianlei Huang

Yeah.

[00:23:49.23] - Anjali Bhatt

So if it's not residential housing now, what are the other drivers of business investment in China?

[00:23:58.07] - Tianlei Huang

Well, manufacturing investment, at least in the first 2 years of China's COVID reopening, was quite strong. You probably have heard of this phrase "involution," right? There was some intense competition in the manufacturing sectors in China, and businesses were just investing a lot of money into expanding their manufacturing capacity. But what happened is what we know, there is a lot of overcapacity, and it has caused a lot of trade tensions and so on. So manufacturing and infrastructure spending was actually growing also decently in the last at least 2 years. But the problem in recent quarters, because of the slowdown in government spending, infrastructure spending is also actually slowed down. So overall, business investment is actually very sluggish in and quarters.

[00:24:50.26] - Anjali Bhatt

Okay, I'm gonna back up a little bit here because you said something earlier that I thought was interesting, but I didn't want to interrupt the flow. Um, you said that the developers, uh, who were building these houses were getting loans from banks and also shadow banks. What's a shadow bank?

[00:25:05.16] - Tianlei Huang

Oh, so those are non-bank financial institutions that also, you know, lend credit to, uh, businesses. Uh, and, you know, mostly, you know, during the housing boom, developers were borrowing money from the so-called trust funds. So those trusts, they function like banks. They take money from usually big companies and also wealthy individuals. And of course, those people, those companies were willing to put their money with those trust funds was because the promised return was higher. But obviously, to have higher returns, you also have to take higher risk. And for banks, a lot of them, the credit they got from the formal banking sector was insufficient to meet their demand, so they turned to those shadow banks. And another interesting, and also very concerning, linkage between developers and the financial sector was during the boom, a lot of developers actually acquired shares in banks. Presumably, they did that in order to secure easier and cheaper credit from those banks, even though we actually don't know if developers actually did that. But that's presumably one of their goals when they did that, because, is, well, first of all, the banks that they acquire shares are usually small regional banks.

[00:26:24.08]

And in those, at local levels, usually, the enforcement of financial regulation is usually weaker. So they can take advantage of the regulatory loopholes. And there were a couple of smaller banks that failed in the last couple of years. And a major reason is because of the lack of appropriate oversights by the local financial regulators. So that's certainly in place, and developers were just wanting to take advantage of that. But over time, obviously, in recent years, because a lot of developers are having financial crisis internally, they were— they tried to sell everything they can to repay their debt. So in recent years, I think a lot of developers have already sold the shares that they acquired in earlier years.

[00:27:17.23] - Anjali Bhatt

So were those three red lines that the regulators implemented, did that also affect the relationship between the developers and the banks, or was that sort of separate?

[00:27:28.08] - Tianlei Huang

No, well, it was obviously related. So the three red lines was just actually a part of what the regulators at the time did. So from the developers' point of view, how much they were able to borrow was restricted by the three red line policy. Policy. The banks were also facing something similar. So the regulators— so the overarching, the overall goal of these regulatory measures is to force deleveraging in real estate, right? And developers are just hugely leveraged. And so that's where the street red lines came from. And for the banks, the regulators also introduced some regulations that cap how much they can lend to real estate developers and also household mortgages. And, well, but at the time, they probably didn't realize how fragile this whole bubble is. You know, these measures are actually quite heavy-handed, coupled with Zero-COVID. That just choked a lot of developers and just led to the bubble burst.

[00:28:29.27] - Anjali Bhatt

Okay, well, we're almost out of time, but I did want to ask you before we're done. So we've been throwing around a lot of numbers about consumption and investment and the share of China's— the makeup of China's economy and sort of what the statistics are. So I wanted to ask you, do you trust the data and the statistics that are coming out of China?

[00:28:49.29] - Tianlei Huang

Well, you know, I think, you know, when it comes to China data, I think two things are happening at the same time. One is, one is I think it's underappreciated, which is the quality of some Chinese data is actually improving, either through China cracking down on data falsifications, which were quite commonplace, especially at local levels in earlier years, or through China adopting international standards standards in compiling its statistics. One example is how China calculated owner-occupied housing services. In the past, they just measured it based on historical construction cost, but obviously, given the housing boom, that approach just hugely underestimated the value of those services. And now, in the last 2 years, it has revised its methodology, and it's doing now what other countries are doing, which is to measure it based on imputed rents. That's just one example. Example of improvement in the data quality through revised or better methodology. You know, at the same time, you see another phenomenon happening, which is a lot of data have gone disappeared. And we all know what happened to the youth unemployment data series a couple years ago. But you know, that eventually got republished under revised definition.

[00:30:04.10]

A lot of other data that just— that got disappeared have never come back. And usually before they disappear, they show some kind of weaknesses of the Chinese economy. And I think that's very concerning. So we're seeing those two things happening at the same time. A part of the economy is being measured more accurately, but some other parts of the economy is becoming less, less transparent.

[00:30:24.10] - Anjali Bhatt

That's so interesting. Okay, so in the next 3 to 6 months, besides finishing your book, which I know you're in the end stages of, what will you be watching for in China?

[00:30:36.05] - Tianlei Huang

Well, I will be watching for two things. Again, this is related to what we discussed earlier about what is driving the housing bust. One is I'll be watching for whether real interest rate in China will come down meaningfully, either through the central bank cutting interest rates more or through inflation picking up. And the second thing is the vibes. I'll be watching for any changes in household sentiments, whether it gets improved or it just gets worse and worse, right, which can happen. And since it's so critical to the outcomes of the housing sector.

[00:31:09.27] - Anjali Bhatt

We are the vibes watchers. It's true. All right. Well, thank you so much, Tianlei, for joining us. And thanks to all of you for joining us for this edition of PIIE Insider Live. What did you think? What do you want to see next? And let us know at meetings@piie.com. And if you're not already, subscribe to PIA Insider, the newsletter, at pia.com/subscribe. And make sure to keep an eye out for Tianlei's forthcoming book, Detox: China's Fiscal Reckoning in the Shadow of the Housing Bust. Thank you all for